The freezing of human joints in a tissue bank will allow Calgary General Hospital to start a joint transplant program, the second hospital in Canada to do so.

Toronto's Mount Sinai Hospital was the first to begin such a transplant program, but it lacks the tissue bank which the Calgary hospital says is the first in Canada.

Joints are stored in the bank at temperatures as low as minus 80 degrees Celsius, keeping them fresh for long periods.

Dr. Norman Schacher, an orthopedic surgeon who helped set up the bank, said it enables the hospital to offer an alternative treatment in certain selected cases of early arthritis.

The doctor, who conducted the first partial joint transplant in Canada outside Toronto in May, and Dr. Douglas Bell, another orthopedic surgeon at Calgary General, combined to set up the bank after conducting partial transplants.

Dr. Schacher removed half of a knee joint of a 17-year-old Alberta student, Richard Dillman, after a large tumor was found in it. The joint was replaced by a joint from a donor who died at the city's Foothills Hospital.

Although the student is still recovering, "he has almost a full range of movement of the knee," Dr. Schacher said.

"But it's still far too soon to tell anything. It will be a year or so before we see whether the implanted bone is going to take."

Without the transplant, the student faced the possibility of the tumor destroying the remaining good cartilage and causing arthritis, an incurable disease.

Canadians help map Peru

Canadian scientists are helping Peru to map its rivers, roads and volcanoes, says Margaret Munro in *The Citizen*, June 1979. Canadian remote sensing specialists and Peruvian scientists have been using satellites to redraw Peru's official maps, which were based largely on guesswork.

The Peruvian experts have spent months with their Canadian colleagues learning the art of interpreting maps and photographs relayed by satellite.

Agricultural and mining projets have

been undertaken as a result of information received since 1976 by the Canada-Peru team from the data banks of the U.S. and Brazilian space agencies.

"This information comes from satellite sensors that record the visible and nearinfrared light reflected off the land and water below and convert the measurements into radio signals, which are recorded by receiving stations around the world," reports Miss Munro.

"The information is transformed by computers into photographic images, which not only map out the landscape, but can distinguish different types of vegetation, soil and rock, a feat not possible with the naked eye."

Fritz Du Bois, the Peruvian director of the \$620,000 four-year program sponsored by the Canadian International Development Agency, will return to Peru this September with a fully-equipped remote sensing lab and the first scientific library on the subject ever compiled in Spanish. Mr. Du Bois said he hopes his government will eventually be able to afford a receiving station to tap the satellite network. Meanwhile, Peru will continue to purchase data collected by the U.S. and Brazilian agencies and interpret it in the new lab.

Marathon golf aids injured player

Professional golfers in Ottawa banded together recently to play hundreds of holes of golf to aid another player seriously injured in an accident last January, reports Martin Cleary in *The Citizen*, June 1979.

The golfers were on the courses from dawn to dusk raising an estimated \$85,000 to \$90,000 for Gerry Thompson, an assistant golf professional at a local club, who was left paralyzed from the neck down after an accident in Florida.

Golf for Gerry Day, as the event was called, was devised to pay Mr. Thompson's medical bills which amounted to \$40,000 while he was in a Florida hospital and to offer him some security in the future. Golf club members and the public sponsored participating golfers a certain amount of money for each hole played.

Don Ferne, a golf pro from Cedarhill golf club, along with Carleton golf club's Greg White played for a total of \$20,000, reports Mr. Cleary. Mr. Ferne estimated he walked 50 miles on his course as he played 126 holes at \$90 a hole or \$11,340 in total. He began his 13-hour marathon session by hitting his first ball at 4:30 a.m. and finished at 5:30 p.m.

Mr. White, a close friend of Mr. Thompson who was with him at the time of the accident, covered the most holes with 136; at \$65 a hole he added another \$8,840 to the fund. "I was beat after 90 holes and ready to pack it in," said Mr. White, who jokingly asked for a stretcher at the end.

Researcher's study of deer aids European wildlife management

A research specialist with the Ontario ministry of natural resources, has developed a wildlife management system which has changed the habits of big game hunters in western and central Europe.

Twice in the last year, Anton Bubenik, a native of Czechoslovakia who has been in Canada nine years, has been presented awards for his research.

Last October, the Premier of Austria presented him with an award for work involving the study of herds of red deer, roe deer and chamois - a goatlike mountain dweller.

In April he won an award for professional accomplishments in wildlife management from the Wildlife Society in Rhode Island.

Mr. Bubenik said his work was important in establishing a balanced social structure in herds and a good relationship between deer and the environment.

He said that since his studies were put into use in Europe the anti-hunting mood has changed tremendously.

His work involves the teaching of selective hunting.

"In Austria, sportsmen have learned to identify deer by age and sex before they shoot, in order to leave the right number of mature and experienced breeding animals," he said.

Mr. Bubenik said the numbers and kinds of animals to be shot are planned before the hunt and hunters must carefully adhere to the shooting plan.

Austrian deer caused considerable damage to the forests before Mr. Bubenik introduced selective hunting to balance the social structure of the herds. Now there is little or no conflict with forestry use of the land.